

Work Order ID 105453

August-06-13 11:02:19 AM

\*105453\*

Page 1

Item ID: 41232-200-002-001

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: tube

Start Date: 8/06/13 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 8/20/13 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan: MC5 Date: 1308-06 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
41232-200-002	Rev A								
100		0.00							
<b>*100*</b>	CONVENTIONAL LATHE					10	0		
Hardinge	Memo	0.00							
Hardinge CNC Lathe Small	Turn as per Dwg 41232-200-0021								
	TURN BORE TAP DRILL 45/64" AND TAP 3/4" 20								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*110*</b>						10	0		
QC	Memo	0.00							
Quality Control									
120		0.00							
<b>*120*</b>	HAAS CNC VERTICAL MACHINING #1					7	3		
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1- Mill as per Folio FA687 Rev: <u>AA</u> & Dwg 41232-200-002 Rev: <u>A</u>								
	2-Deburr								

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: dot Date: 14/11/24QA Closed: 14/11/24 Date: 14/11/24

Work Order: <u>105453</u>	<b>DISPOSITION</b> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input checked="" type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>			
Part No. <u>41232-200-002-001</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
NCR No. <u>14-3396</u>		Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator	<u>13/10/25</u>	<u>120</u>	<u>1</u>	<u>Ø 0.12 DRAIN HOLE</u>	<u>DAS</u>	<u>Acceptable.</u>	<u>13</u>		<u>DAS</u>
Material				<u>IS DRILLED THROUGH</u>	<u>12</u>	<u>No effect on</u>	<u>2</u>	<u>B.A</u>	<u>16</u>
Setup				<u>PART.</u>	<u>9-89</u>	<u>Fit, function, &amp;c</u>	<u>13/10/25</u>	<u>13/10/30</u>	<u>13/10/28</u>
Other						<u>strength of part</u>	<u>14/10/28</u>		
Process									
Supplier									
Training									
Unapproved									

## FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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August-06-13 11:02:19 AM

Page 2

**Accept**

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 8/06/13      **Start Qty:** 10.00      **\*10\***

**Cust Item ID:**

**Required Date:** 8/20/13      **Req'd Qty:** 10.00      **\*10\***

**Customer:**

Run Start \*NR1\*

**Approvals:**      **Process Plan:**                      **Date:**                      **Tooling:**                      **Date:**

Stop \*NR2\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130 QC2- Inspect parts off machine FAI/FAIB

0.00

**\*130\***

0.00

QC

## Memo

### Quality Control

$P_0 \rightarrow$

140 QC8- Inspect parts - second check

0.00

**\*140\***

0.00

QC

## Memo

## Quality Control

145	0.00
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**\*145\***

0.00

HandFinish

## Memo

## Hand Finishing

## CLEAN AND REMOVE ALL PART MARKINGS

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: *[Signature]* Date: 14/01/21

QA Closed: 2/1/08 Date: 1/4/08

Work Order: <u>105453</u> Part No. <u>41232-200-002-001</u> NCR No. <u>14-3395</u>	<b>DISPOSITION</b> Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b> <div>             Skid-tube <input type="checkbox"/>              Machining <input checked="" type="checkbox"/>              Thermoforming <input type="checkbox"/>              Large Fab <input type="checkbox"/> </div> <div>             Crosstube <input type="checkbox"/>              Small Fab <input type="checkbox"/>              Finishing <input type="checkbox"/>              Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/>              Prod. Eng. Coord. <input type="checkbox"/>              Rec/Store/Packaging <input type="checkbox"/>              Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/>              Quality <input type="checkbox"/>              Other <input type="checkbox"/> </div>
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Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data		13/10/28	120	3	Parts positioned wrong in visc.  RC operator dist verify operator & part before. Runny operations	DAS 16 9-89  QJZ042 13/10/28	Scrap & Destroy  Cant Replace No material  \$10.83	MH 13/10/28  D-a 13/10/30 JFR (DAG 08 9-89)	DAS 16 9-89  QJZ042 13/10/28	
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

**FAULT CATEGORY**

Landing Gear		General	
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input checked="" type="checkbox"/> Positioned Wrong
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Weld
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Wrong Stock Pulled
			<input type="checkbox"/> Other

# Work Order ID 105453

August-06-13 11:02:19 AM

\*105453\*

Page 3

Item ID: 41232-200-002-001

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: tube

Start Date: 8/06/13 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 8/20/13 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Outsource process-Anodize per QSI017 4.1.10.1	0.00							
<b>*150*</b>									
Outsource4	Memo	0.00							
Outsource process - Anodize	Issue P/O: <u>22153</u> Black Anodize as per Dwg 41232-200-005 Ensure Certificate of Conformity is attached								
160	Receive & Inspect for Damage & Mat'l Certs	0.00							
<b>*160*</b>									
Packaging	Memo	0.00							
Packaging	Ensure certificate of conformity is attached								
170	QC6- Inspect dimensions to drawing	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

08/13/11/22 (7)

7x 13-12-18

DAS  
26  
9-89

DAS  
27  
9-89

3/12/19

7

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY			
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other

# Work Order ID 105453

August 06-13 11:02:19 AM

\*105453\*

Page 4

Item ID: 41232-200-002-001

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: tube

Start Date: 8/06/13 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 8/20/13 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180 Identify as per dwg & Stock Location: 8T376 0.00

\*180\*

Packaging

Memo

0.00

Packaging

7X 13-12-20

DAS  
28  
9-89

190 QC21- Final Inspection - Work Order Release 0.00

\*190\*

QC

Memo

0.00

Quality Control

13/12/30

13-12-20

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other



# Work Order Print

August-06-13 11:02:23 AM

1/1

Work Order ID: 105453

\*105453\*

Parent Item: 41232-200-002-001

\*41232-200-002-001\*

Parent Item Name: tube

Start Date: 8/06/13

Required Date: 8/20/13

Start Qty: 10.00

Required Qty: 10.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M2024T3H1.375 Purchased No

100

f

5.6520

0.5

5

**\*M2024T3H1 375\***

\*\*

DAS  
40  
9-89

13/09/18

2024-T3 Hex Bar 1.375"

### Location

### Loc Qty

### Loc Code

MAT012

5.652

→ 120777

5.652

4.5

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

DART AEROSPACE LTD		Work Order:	105453
Description: Tube		Part Number:	41232-200-002-001
Inspection Dwg: 41232-200-002 Rev: A		Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.69	+/-0.030	.696	✓		MH-04	Caliper
4.94	+/-0.030	4.934943	✓		VERU	P40-12
3/4-20	N/A	3/4-20	✓		1	1
R0.44	+/-0.030	.44	✓		rad. gauge	—
0.61	+/-0.030	.612	✓		MH-04	Caliper
0.88	+/-0.030	.8805	✓		MH-04	Caliper
0.063	+/-0.010	.0635	✓		MH-04	caliper
1.38	+/-0.030	1.372	✓		MH-04	caliper
0.69	+/-0.030	.685	✓		VERU	P40-12
0.12	+/-0.030	.124	✓		MH-04	Caliper
Ø0.12	+/-0.030	.126	✓		MH-04	caliper
0.98	+/-0.030	.967	✓		MH-04	caliper
0.25	+/-0.030	.252	✓		MH-04	caliper
0.36	+/-0.030	.382	✓		MH-04	caliper
0.37	+/-0.030	.340	✓		MH-04	Caliper
0.10	+/-0.030	.095	✓		MH-04	caliper
R0.063	+/-0.010	.063	✓		rad. gauge	—
0.373	+0.017/-0.000	.375	✓		MH-04	Caliper
Ø0.34	+/-0.030	.340	✓		MH-04	Caliper
R0.25	+/-0.030	.25	✓		rad. gauge	—
2.38	+/-0.030	2.3845	✓		MH-04	caliper
3.81	+/-0.030	3.808	✓		MH-04	caliper

Measured by: <u>40</u> / <u>NH</u> / <u>28</u>	Audited by: <u>D.A.</u> / <u>08</u> / <u>28</u>	Prototype Approval:	N/A
Date: <u>13/09/18</u> / <u>13/10/28</u>	Date: <u>13/10/30</u> / <u>28</u>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.12.02	New Issue	KJ/DD	

DATE 2/26/04	<b>ENGINEERING ORDER</b>	E.O. No. B-1	SHT. 1 OF 1
BY D. NELSON		DWG. AFFECTED 41232-200-002	
APPROVED BY		SHEET AFFECTED SHT 1 & 3	
TITLE STEP ACTUATOR COMPONENTS			

REASON FOR CHANGE: CHANGED DASH NO. OF INSERT ON L/M; CHANGED INSERT CALLOUT ON -005 PIVOT ARM.

MINOR CHANGE - FAR 21.95

IS

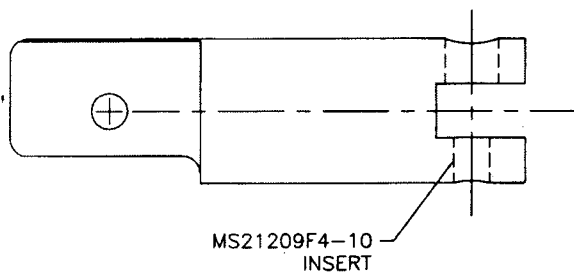
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WAS

1	MS21209F4-15	INSERT
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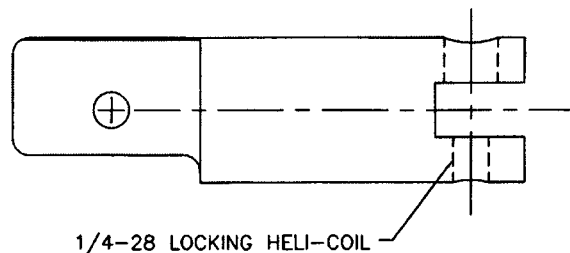
105-453 M.C.S  
13-08-06

IS



-005 PIVOT ARM

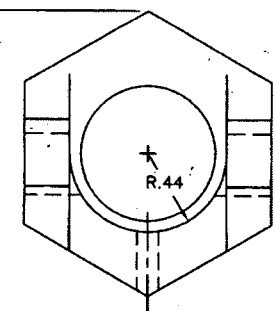
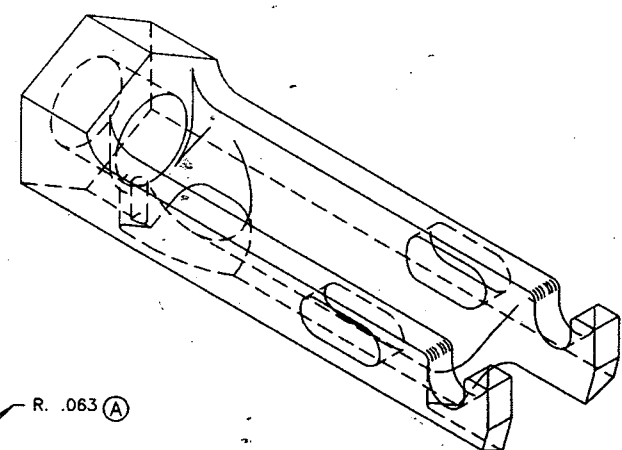
WAS



-005 PIVOT ARM

CHANGE REQUIRED:	DATE:	BY:	YES	NO
TRAVELER				
INSTALLATION INSTRUCTIONS				
MAINTENANCE INSTRUCTIONS				
ILLUSTRATED PARTS				
UNINCORPORATED DRAWING LIST				
MASTER DRAWING LIST				
COMPUTER DATA BASE				

LETTER	OFFSMAN	DATE	DESCRIPTION	APPROVED	DATE
A	DNN	2/17/03	ADDED SMOOTH EDGES TO -001 & -003; REDUCED LENGTH OF -003 BY .125"; ADDED DRAIN HOLE TO -001; INCREASED DIA. OF AFT SLOT ON -001.		
			MINOR CHANGE - FAR 21.95	CHECK D. MURPHY	2/17/03

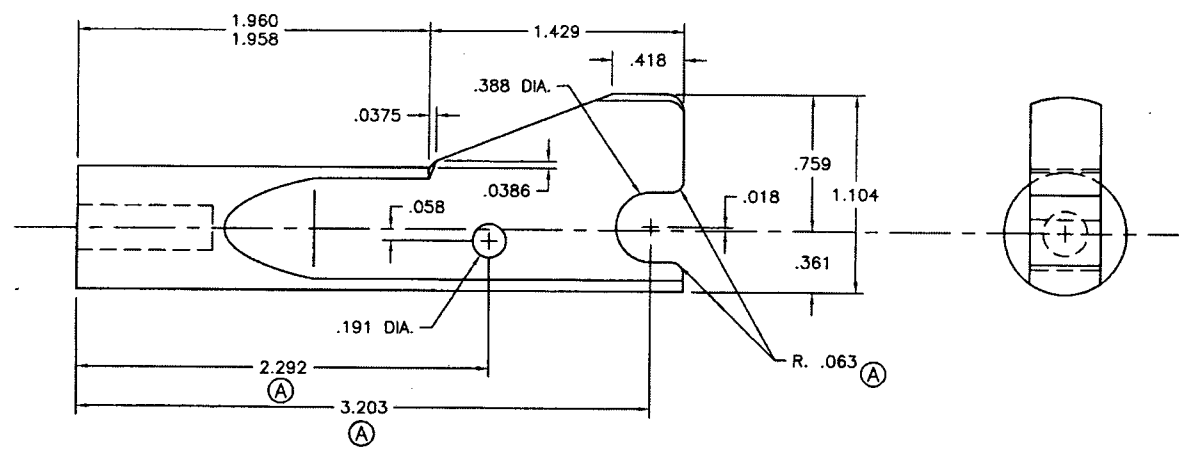
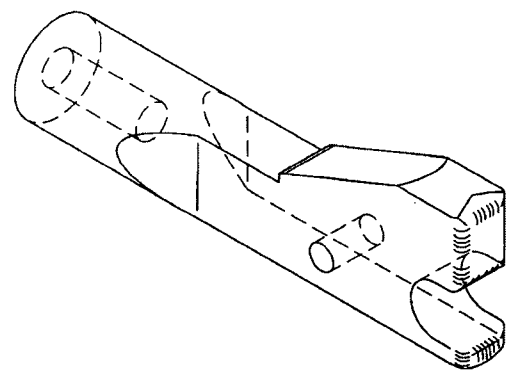
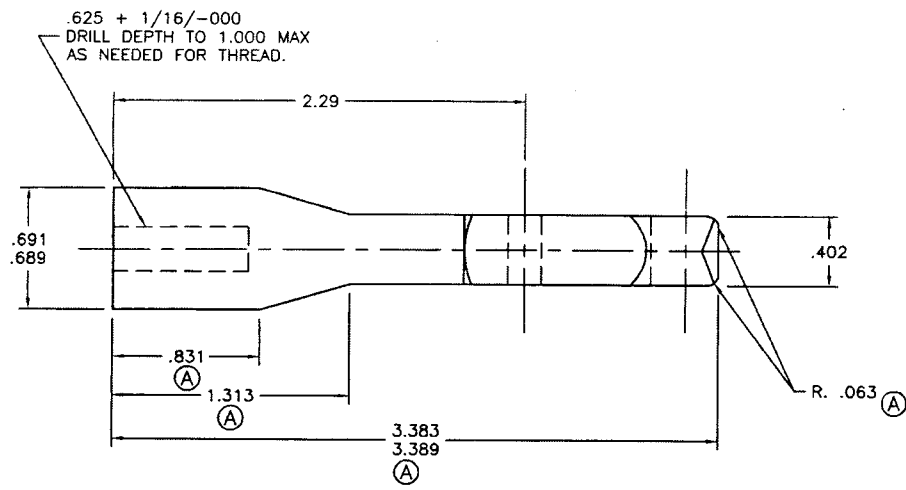


-001 TUBE

[illegible]

NOTE:

105453



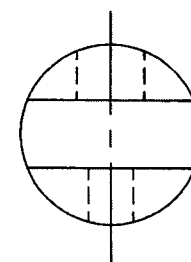
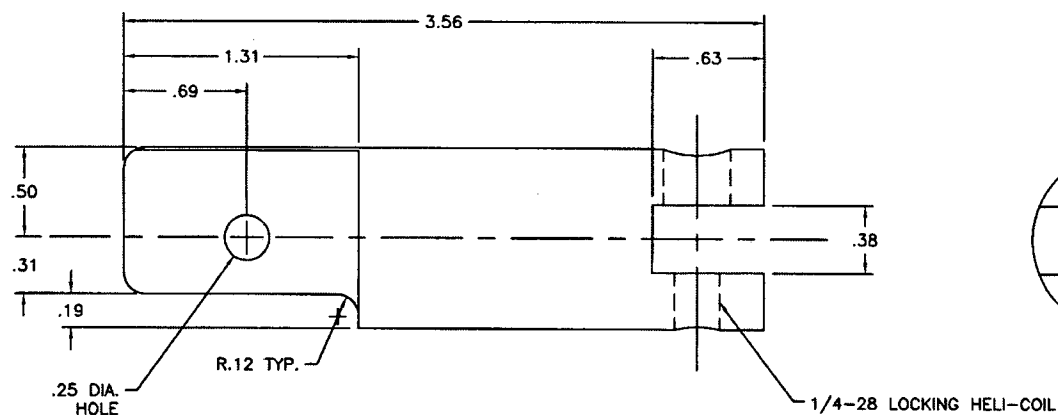
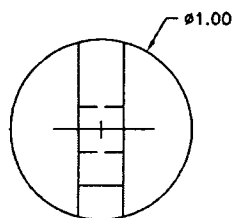
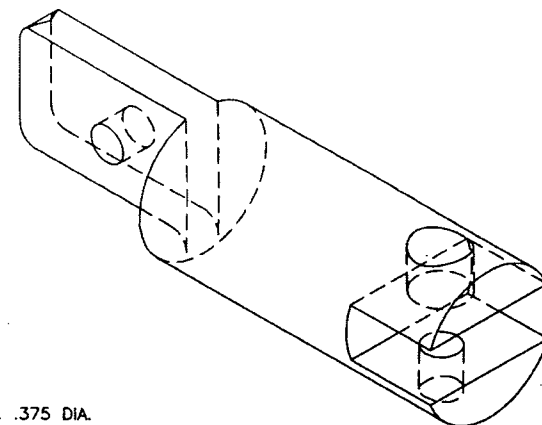
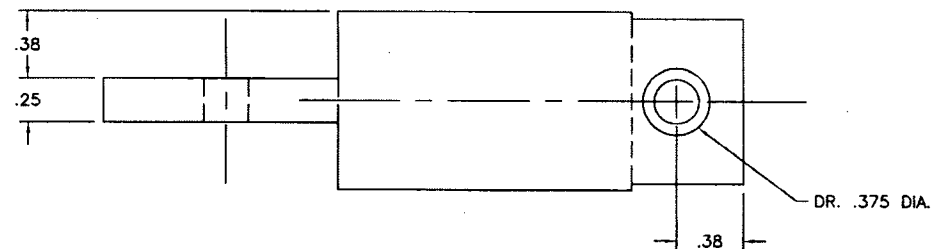
-003 LATCH

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*Era Aviation, Inc.*

TITLE	SIZE	DWG. NO.	REV.
STEP ACTUATOR COMPONENTS	C	41232-200-002 SHT 2 OF 3	A

105453



-005 PIVOT ARM

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*Era Aviation, Inc.*

TITLE  
STEP ACTUATOR COMPONENTS

SIZE  
C

DWG. NO.  
41232-200-002  
SHT 3 OF 3

REV.  
A



A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62794

Date: 18-Dec-13

#### To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

#### Ship To


DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 16 PCS D4410-11 (0.90) 22 PCS 41232-200-002-001 (1.60) 20 PCS D2348 (0.95) BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2 12 PCS 646.3311 (18.10) 6 PCS 646.3012 (19.90) 8 PCS 647.4610 (12.05) 8 PCS 647.9312 (8.55) 27 PCS 647.9317 (18.00) 6 PCS 647.9411 (24.50) 38 PCS 649.8310 (14.50) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20130775	PO: 22153 Line:	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: 18/12/13			
CERTIFIED SIGNATURE: 			
RECEIVER SIGNATURE: _____			